Southern Medical Group's New Facility Features Cisco Unified Communications, Networking and Wireless Technology

Executive Summary

An SMB-sized physicians group was preparing to move into new facilities, and its IT manager wanted to vastly improve the performance of the group's current network, and provide a better phone system.

Cisco Premier Certified Partner Hayes designed and deployed a Cisco networking solution that includes Cisco Unified Communications, Cisco wireless networking, and Cisco ASA to ensure security and adherence to Federal HIPAA regulations.

Customer Name
Southern Medical Group

Industry
Healthcare

Business Challenge
In preparation to move into a new, larger facility, the IT manager for a physician's group wants technology in the new building that will provide quick network access, even for large data and image files, and that will adhere to federal regulations. The existing phone system would need an expensive major upgrade to make it worth moving.

Network Solution
Hayes, a Cisco Premier Certified Partner and SMB Select Partner recommended, designed and deployed a Cisco converged network with Cisco Unified Communications, a Cisco wireless solution so doctors and staff could access patient records anywhere within the facility. Cisco ASA (Adaptive Security Appliance) helps ensure network security.

Business Value
The speed and scalability of the new Cisco solutions provide major benefits including speedier access to patient records, and a call center that responds to and routes patient calls faster and more effectively. The Cisco network will allow the physician's group to interoperate seamlessly with a nearby hospital, allowing for improved collaboration and streamlined patient care.

In 1988, two prominent Tallahassee, Florida physician groups merged to form the Southern Medical Group (SMG). Today, the physicians of SMG practice the specialties of internal medicine and cardiology, and also provide adult primary and specialty care, as well as consultations for other physicians. This SMB-sized physicians group has a total of 200 employees, including physicians, assistants, nurses, and administrative staff.

When the growing medical group was preparing to move into a new building, Mike Manley, IT manager for SMG, became concerned about moving the existing network and phone system. Although SMG started with a few servers and a network closet, the organization's growth drove the network to different floors of the hospital. It soon became cluttered with a lot of noise and interference. Manley and his staff have the responsibility for making sure software applications for the physician's group operate cleanly on the network. These include business applications for such things as accounting, as well as medical applications that run across the network such as electronic medical records, and medical imaging that allows doctors to view images across the network fiber.

"Our network and communication system consisted of multiple manufacturers and platforms, and it was unwieldy to manage," says Manley. "In preparing to move the organization into our new facility, two things became clear: it would cost us a lot to upgrade and expand our current phone system to make it worth moving, and we needed a network that would deliver high visibility in a clustered environment. We needed a network that would be available to our doctors, even if the drive crashes or the network somehow goes out." Manley noted how sometimes doctors and staff would click to access data on the network, and literally go get a cup of coffee while waiting for the computer to respond. He wanted a network that was not only fast and reliable, but also a scalable solution that would serve the medical group's needs for five years or more without major reinvestments. And in terms of availability and security, the network would also need to adhere to the federal government's HIPAA (Health Insurance Portability & Accessibility Act) regulations.

Manley started researching local systems integrators and consulting firms that could make technology recommendations and handle deployment of a new network and communications system for the physicians group. After meeting with several firms, Manley and his IT team chose Hayes, a Cisco® Premier Certified Partner and SMB Select Partner that has been in business since 1986. This minority-owned technology services and products company, headquartered in Tallahassee, started as a provider of personal computer hardware and network services. In 1988, it helped implement the first metropolitan area network for the State of Florida. Today, Hayes provides total integration and complete services as a single vendor, capable of analyzing, developing, and deploying unified IT solutions for the most demanding of business processes.

"Our philosophy is to take care of businesses in the local community," says Sean Johnson, account executive at Hayes. "In fact, Southern Medical Group is literally down the street from our offices. We value the relationships we have built in our community, and we strive to take the very best care of our customers." Johnson and the Hayes team evaluated SMG's technology needs and its current solutions. Johnson wanted to recommend a solution that would simplify SMG's network platform, allowing fewer people to manage more tasks.

"SMG had enough to manage just with their various software applications, but they were also contending with multiple hardware vendors for their network. That is a lot to manage with a small staff," says Johnson. He recommended that the group deploy a consistent and reliable converged network platform in their new building that would support both a highly available data network and Cisco Unified Communications.

"When considering manufacturers that could deliver everything that SMG needed, only Cisco could do it all," says Johnson. "Cisco could provide the converged network platform, a highly available data network that could handle large imaging files, Cisco Unified Communications for a new phone system and improved call center, and the network security that a medical group needs to have in place." Additionally, a Cisco wireless solution would provide physicians and staff with access to patient records and images from anywhere within the building. Eventually, the wireless solution could be expanded to provide guest access to the Internet, as well as the option of using wireless technology to track the medical group's mobile equipment such as wheelchairs and computer carts.

Johnson and the Hayes team recommended a Cisco converged network with Cisco Unified Communications, including a Cisco 4500 series core switch with Cisco 3560 switches in the closets. The phone system would feature Cisco Unified CallManager call-processing software, and Cisco Unified Contact Center Express for SMG's call center. Hayes would initially deploy 250 Cisco Unified IP Phones, including Cisco Unified IP Phone 7970G color phones for every doctor, and Cisco Unified IP Phone 7940G models in all of the exam rooms. Cisco ASA (Adaptive Security Appliance) would handle network security. A total of 23 Cisco access points were deployed in the building for wireless access.

The teams at both Hayes and SMG say the deployment went very smoothly. The old building was essentially shut down while technology was deployed at the new facility, so Manley and his team set up an off-site office for patients that had a phone system and a network.

"We essentially had duality of operations for two weeks to make sure that all patient care continued smoothly," says Manley. "This was a really big move for SMG — we had a new facility and new technology, so it was a lot for everyone to absorb." Cisco Technical Assistance Center helped with a couple of phone system issues, and some high-voltage lines outside the building caused some

interference, but Hayes was able to address that easily. The new Cisco Unified IP Phones offered such improved functionality that the SMG staff was excited to learn how to use them, and within a couple of weeks, SMG was operating smoothly in its new building, with its new network and new phone system.

"Most people could figure out basic phone features such as speed dial, and Hayes offered training during lunchtime so people could quickly learn how to use the phones to be more efficient," says Manley. "The doctors also appreciate the vastly improved wireless coverage. Our old building had a lot of dead spots in terms of wireless. Our goal for the new building was 100% wireless coverage except for the elevators, and Hayes accomplished that."

The speed and scalability of the new Cisco network are huge benefits, according to Manley. Wait times for data are a thing of the past; patient records and large imaging files are now delivered nearly instantaneously. Redundant power supplies in closets help ensure high network uptime, and a generator kicks on within seconds of a power failure. Patients calling in to SMG's call center have a choice of speaking with a nurse or a physician, and triage nurses specializing in cardiology and internal medicine handle skill-based routing of calls, providing improved service to patients.

Manley and his IT staff are already considering how SMG can further leverage its Cisco network. They have the option of adding unified messaging with Cisco Unity to their phone system, and they are excited about offering expanded services to the community such as MRI. With the fast and powerful Cisco network in place at SMG, Manley and his IT staff can work toward the goal of having networking interoperability with Tallahassee Memorial Hospital. This will allow doctors to work between both facilities seamlessly, allowing for improved collaboration and streamlined patient care.

With healthcare as one of its vertical focuses, Johnson and his associates at Hayes know and understand the needs of both healthcare and SMB-sized organizations.

"No business wants to throw money away, and this is particularly true of SMBs," says Johnson. "When an SMB invests in technology, they need to realize immediate benefits, and they want assurance that the investment that they make will be viable for years. Our expertise and Cisco certifications, along with the Cisco name, allow us to serve our community with solutions that will improve their business today and in the future."